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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/585,905	07/12/2006	Gunter Wagner	502901-327PUS	1616

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EXAMINER	
COMLEY, ALEXANDER BRYANT	
ART UNIT	PAPER NUMBER
3746	

MAIL DATE	DELIVERY MODE
03/10/2011	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/585,905	WAGNER ET AL.	
	Examiner	Art Unit	
	ALEXANDER B. COMLEY	3746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 December 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12 July 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This office action is in response to the amendment and remarks filed 12/17/2010.

Status of the Claims

1. The Examiner acknowledges receipt of Applicant's amendments and arguments filed with the Office on August 13th, 2010 in response to Final Office Action mailed on April 13th, 2010. Per Applicant's response, Claims 1 and 8 have been amended, while Claim 11 has been newly-added. All other claims remain in their previously presented form. Therefore Claims 1-11 now remain pending in the instant application. The Examiner has carefully considered each of Applicant's amendments and/or arguments, and they will be addressed below.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. The factual inquiries set forth in Graham **v.** John Deere Co., 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. **Claims 1-11** rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent No. 5,106,277 to Tuckey in view of United States Patent No. 5,121,021 to Ward.

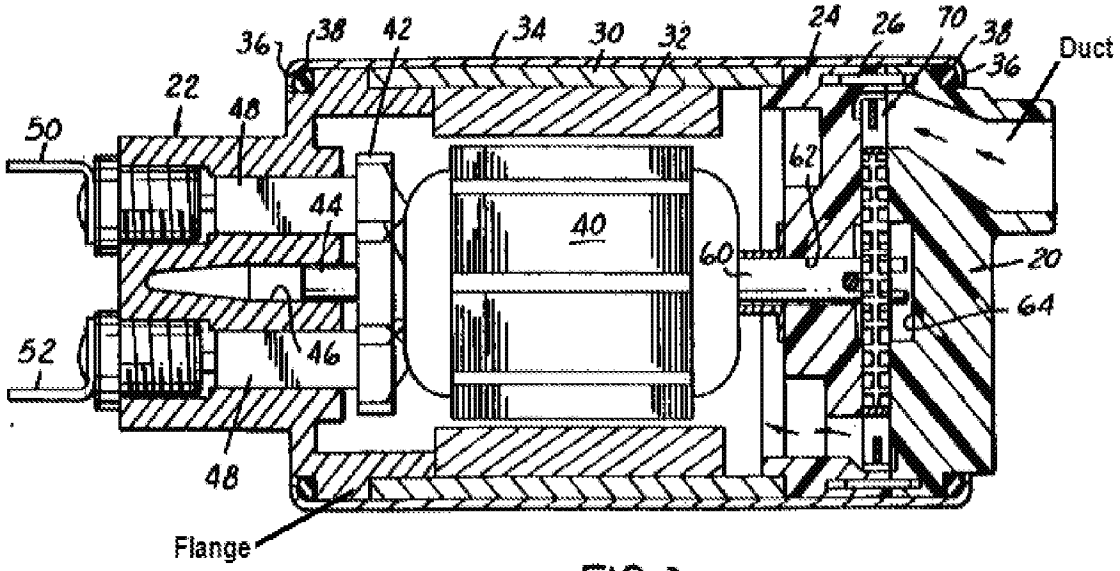

FIG. 1

In regards to Independent **Claim 1**, and with particular reference to Figure 1 shown immediately above, Tuckey discloses a fuel pump for an internal combustion engine. Tuckey discloses an electric motor (40), a cylindrical flux ring (30) (i.e. stator ring), permanent magnets (32) (i.e. magnetic shells) arranged inside the cylindrical flux ring (30), and a motor casing (34) to accommodate the cylindrical flux ring (30) (See column 1, lines 50-55 and Fig. 1). The disclosure according to Tuckey differs with respect to the applicant's invention in that no specific detail is provided teaching of a one-piece body comprising the stator ring (30) and the magnet shells (32).

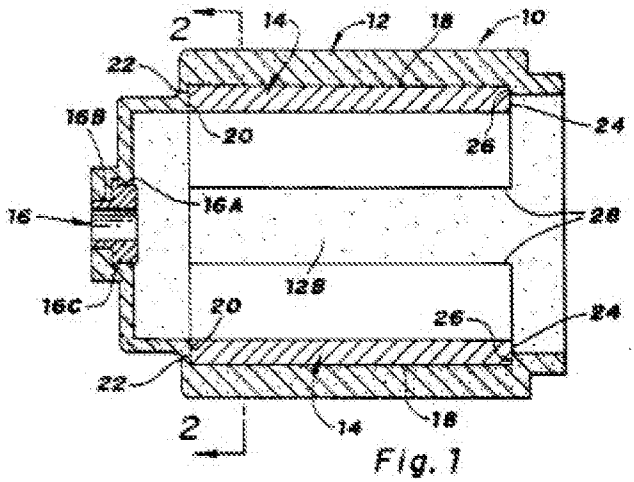

Fig. 1

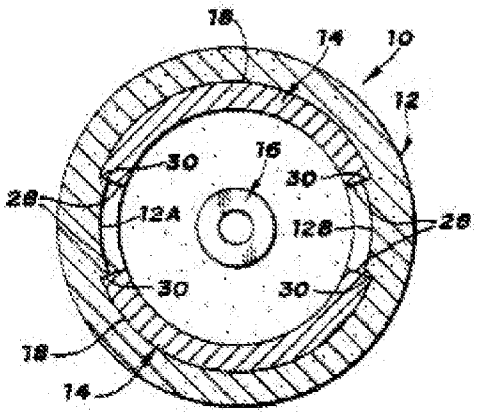

Fig. 2

However, with reference to Figures 1-2 shown immediately above, Ward discloses a one-piece, combined frame-and-stator assembly 12 for a dynamoelectric machine. Ward's device is designed to simplify the assembly process by lessening the number of parts and eliminating the need for mechanical fasteners (See Abstract) Most important to this assembly 12 is its single piece body made of a single material to form two of the distinct motor components (i.e. a casing and a stator). As shown in Figures 1 and 2 immediately above, the casing 12 is formed as a composite material made up of a blend of iron and plastic (See Col. 2, Lines 3-10) which allows the casing 12 to simultaneously form both the stator and motor casing (i.e. portions that provide separate and distinct functionality) (See Column 5, Lines 37-39) . Moreover, Ward's assembly 12 is designed to securely engage the permanent magnets 14 in order to avoid the need for additional fasteners or adhesives (see Abstract; col. 2, lines 34-44) As such, it is clear that Ward also desired a simple structure for integrating the magnets 14 with the stator/casing 12 in order to further simplify the overall motor structure. Hence, it is apparent that Ward discloses that it is known to combine two different motor

components into a single piece of a single material in order to simply a motor driven device like that of Applicant's motor-driven fuel pump. It is also apparent that Ward provides the motivation to combine the magnets 14 with the stator 12 in a simpler and secure manner. Thus, Ward discloses the claimed invention with the exception of the two particular motor components being combined in Applicant's invention (i.e. the stator and the magnets, rather than the stator and the motor casing). However, since Ward shows that it is well-known to combine two different motor components having separate and distinct functions into a single-piece body that maintains functionality of both components, it would have been obvious to one having ordinary skill in the art at the time the invention was made to also integrate the magnets with the stator (like Ward's integration of the stator with the casing), since it has been held that forming in one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art. Howard v. Detroit Stove Work, 150 U.S. 164. Therefore, to one of ordinary skill desiring a simpler fuel pump assembly having less parts, it would have been obvious to utilize the component-combining techniques disclosed in Tuckey in the fuel pump seen in Ward in order to obtain such a result. Consequently, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the separate stator 30 and magnets 32 of Tuckey with the single-piece teachings of Ward in order to obtain predictable results; those results being a simpler and cheaper fuel pump assembly that requires fewer parts to manufacture.

5. Regarding dependent **Claim 2**, the Ward portion of the combination teaches the

use of iron or ferrite powder particles that are embedded within a thermoplastic material. In particular, Ward states "The composite magnetic frame material is comprised of iron powder particles having a particle size in a range of about 10 to 250 microns that are coated with a thin layer of thermoplastic material. The composite material is molded to the permanent magnet. It, accordingly, is another object of this invention to provide a method of manufacturing a frame and permanent magnet assembly where a composite material of the type described is molded to the permanent magnet." (Column 1, Lines 24-32) With respect to dependent **Claim 3**, Tuckey in view of Ward discloses the claimed invention except for the specific use of polyphenyl sulfide material for the plastic. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize such a material, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a mater of obvious design choice. In re Leshin, 125 USPQ 416. In regards to dependent **Claim 4**, it can be seen in Figure 1 above that the frame 12 (i.e. casing) and stator ring for a single piece body (See Claim 1 above). With respect to dependent **Claim 5**, the Tuckey portion of the combination discloses the use of a flange portion for the connection of a fuel line. As illustrated within Fig. 1 of Tuckey, the body (34) comprising the stator ring (8) has a flange portion for joining a connection piece (22) intended for the connection of a fuel line (50, 52) (See Fig.1). In regards to dependent **Claim 6**, Tuckey further discloses a bearing (60) for the rotor which can be seen in Fig.1 as being provided in an analogous manner as depicted by the applicant. Regarding dependent **Claim 7**, it can be seen in Fig.1 according to

Tuckey that the cylindrical flux ring (30) or stator ring is joined in one piece to a component (20) having a duct. In regards to dependent **Claims 8-9**, please see the analysis for Claim 1 above. Regarding dependent **Claim 10**, it can be seen in Figure 1 above that the duct (DUCT) of the pump (See Fig. 1) is arranged in the motor casing 20. Therefore, to one of ordinary skill desiring a simpler fuel pump assembly, it would have been obvious to utilize the techniques disclosed in Tuckey in combination with those seen in Ward in order to obtain such a result. Consequently, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the separate components of Tuckey with the integral assembly of Ward in order to obtain predictable results; those results being a much simpler fuel pump that limits the number of parts necessary for assembly. And finally, in regards to dependent **Claim 11**, the magnet shells of both Tuckey and Ward are designed to induce magnetic flux in the rotor to provide the necessary rotation of the motor (an extremely well-known feature of electric motors).

Response to Arguments

6. Applicant's arguments filed December 17th, 2010 have been fully considered but they are not persuasive. The Examiner's responses can be seen below.

7. In regards to Applicant's argument that Ward does not teach the integration of different materials into a single-piece body formed of a same material, the Examiner must respectfully disagree. As described in the analysis for Independent Claim 1

above, Ward's device is designed to simplify the assembly process by lessening the number of parts and eliminating the need for mechanical fasteners (See Abstract) Most important to this assembly 12 is its single piece body made of a single material (i.e. an iron and plastic blend) to form two of the distinct motor components (i.e. a casing and a stator). As shown in Figures 1 and 2 immediately above, the casing 12 is formed as a composite material made up of a blend of iron and plastic which allows the casing 12 (previously only plastic) and the stator (previously only iron) to simultaneously form both the stator and motor casing. As such, it is apparent that Ward combines portions of different materials (i.e. iron vs. plastic) into a single piece of a single material (i.e. iron/plastic blend) that maintains separate and distinct functionality between the two portions (See Column 5, Lines 37-39). Moreover, Ward's assembly 12 is further designed to securely engage with the permanent magnets 14 in order to avoid the need for additional fasteners or adhesives (see Abstract; col. 2, lines 34-44), thereby providing a simple structure integrating the magnets 14 with the stator/casing 12. Hence, it is apparent that Ward discloses that it is known to combine two different motor components/materials into a single piece of a single material in order to simply a motor driven pump like Applicant's claimed pump. It is also apparent that Ward provides the motivation to combine the magnets 14 with the stator 12 in a simpler and secure manner. Thus, Ward discloses the claimed invention with the exception of the two particular motor components being combined in Applicant's invention (i.e. the stator and the magnets, rather than the stator and the motor casing). However, since Ward shows that it is well-known to combine two different motor components having separate and

distinct functions into a single-piece body that maintains functionality of both components, it would have been obvious to one having ordinary skill in the art at the time the invention was made to also integrate the magnets with the stator (like Ward's integration of the stator with the casing.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALEXANDER B. COMLEY whose telephone number is (571)270-3772. The examiner can normally be reached on M-F 7:30am - 5:00am EST (Alternate Fridays Off). If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Devon C. Kramer can be reached on (571)-272-7118. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Alexander B Comley/
Examiner, Art Unit 3746

/William H. Rodríguez/
Primary Examiner, Art Unit 3741

ABC